

ABSTRACT

A COMPARISON OF ULTRASOUND GUIDED QUADRATUS LUMBORUM BLOCK VS TRANSVERSUS ABDOMINIS PLANE BLOCK FOR POSTOPERATIVE PAIN RELIEF IN HERNIOPLASTY SURGERIES

BACKGROUND AND AIM

To compare the efficacy of ultrasound guided quadratus lumborum block (QLB) vs transversus abdominis plane block (TAP) for unilateral inguinal hernioplasty surgery done under spinal anaesthesia for postoperative pain relief.

METHODS

Seventy unilateral hernioplasty patients, who meet inclusion criteria were randomized and allocated into two groups in this study. After hernioplasty surgery under spinal anaesthesia, all the patients received either ultrasound guided Quadratus Lumborum Block or Transversus Abdominis Plane block when the spinal level regressed to T8 level, for post operative analgesia. Quadratus Lumborum Block was performed under ultrasound guidance with 0.5 ml/kg of 0.25 % Bupivacaine in the Quadratus Lumborum Block group (Q). Patients in Transversus Abdominis Plane (T) group received TAP block with 0.5 ml/kg of 0.25 % Bupivacaine under sonographic guidance. Total duration for performance of block was noted. Patients in both groups were evaluated for any difference in Demographic data (Age, Weight, height, BMI), hemodynamic

parameters, numerical rating pain scale for 24 hrs postoperatively, duration of analgesia, total dosage of rescue analgesic tramadol used and complications.

RESULTS

The demographic parameters like age, height, weight, BMI, duration of surgery were similar in both groups. The block performance time was prolonged in GROUP Q (Quadratus Lumborum Block group) as compared to GROUP T (Transversus Abdominis Plane Block group). There was no difference in hemodynamic parameters in both groups before and after performance of block. The duration of analgesia (mean \pm standard deviation) was prolonged in GROUP Q (787.14 \pm 377.87 minutes) compared to GROUP T (445.71 \pm 264.44 minutes). The number of rescue analgesic requirements and average amount of tramadol consumption was less in GROUP Q than GROUP T (91.43 \pm 61.22 mg in GROUP Q, 145.71 \pm 61.8 mg in GROUP T). The mean postoperative Numerical Rating Pain Scores were less in GROUP Q as compared to GROUP T during 3, 4, 5, 6, 8, 10, 12, 24 hours postoperatively. No complication was noted in GROUP T, in GROUP Q one patient had transient femoral nerve palsy which recovered completely after 12 hours postoperatively.

CONCLUSION

Quadratus Lumborum block provides prolonged duration of analgesia, reduced Numerical Rating Pain scores and has reduced postoperative analgesic requirements than Transversus Abdominis Plane block in unilateral hernioplasty surgeries. The time taken and ease of block performance was better in Transversus Abdominis Plane block than Quadratus Lumborum block .

KEY WORDS

Quadratus Lumborum block, Transversus Abdominis Block, Hernioplasty, Postop analgesia, NRS scores, Tramadol Requirement.